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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,460	02/22/2002	Kenichi Harada	19036/38223	8398

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EXAMINER

CARIASO, ALAN B

ART UNIT PAPER NUMBER

2875

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AD

Office Action Summary	Application No.	Applicant(s)	
	10/080,460	HARADA ET AL.	
	Examiner	Art Unit	
	Alan Cariaso	2875	

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 17-25 is/are rejected.
- 7) ☒ Claim(s) 7-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 8-10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 21 and 22, "the polymer" has no antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6 and 17-24 are rejected under 35 U.S.C. 102(b) as being anticipated by IWATA et al (US 6,111,699).

8. IWATA discloses a light diffusion sheet (20-fig.2; 50-fig.6A) comprising: a transparent base sheet (12); a light diffusion layer (top 18) laminated on a surface of the base sheet (12) and containing beads (14) dispersed within a binder (top 16); and a resin layer (bottom 16) laminated on a rear face of the base sheet (12); wherein the binder (top 16) of the light diffusion layer (top 18) contains a thermosetting resin (col.7, lines 6-12) and the resin layer (bottom 16) contains an ionizing radiation-curable resin (col.7, lines 6-12); wherein the resin layer (bottom 16) is a flat resin layer containing beads (14) dispersed therein (figs.2,6A); wherein the ionizing radiation-curable resin (16) is an ultraviolet-curable resin (col.7, lines 9-10 and lines 33-34); wherein the light diffusion layer (top 16) or resin layer (bottom 16) contains micro inorganic filler particles (col.8, lines 56-67) dispersed within the binder or resin layer (16); wherein the average particle diameter of the micro inorganic filler is within the range of 5 nm to 1 um (col.8, lines 63-64); wherein the amount of micro inorganic filler is 10 to 500 parts by weight per 100 parts (col.8, lines 64-65) of the polymer of the light diffusion layer or resin layer (16); wherein the micro inorganic filler is colloidal silica (col.8, line 57).

9. As for the “sticking-inhibiting” ability of the resin or sticking-inhibiting layer, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

10. Regarding claims 5 and 6, please note that the method of forming the device is not germane to the issue of patentability of the device itself. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore, these (i.e. method) limitations have not been given patentable weight.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over IWATA et al (US 6,111,699) in view of KASHIMA et al (US 5,995,288).

13. IWATA discloses applicant's claimed invention including use with a liquid crystal display. However, IWATA does not disclose the diffusion sheet disposed on a front side of a light guide plate disposed beside a lamp of a backlight unit.

14. KASHIMA teaches a surface light source (50-fig.13) defining a backlight unit for a liquid crystal display (col.1, lines 41-54) including a diffusion sheet (18-fig.13) comprising beads (20) in a binder (42-fig.12A, col.16, lines 26-67) on a front surface (52B) of a light guide (52) of the backlight unit (50) for the purpose of providing good light emitting surface toward the liquid crystal display (col.17, lines 22-33).

15. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the liquid crystal display and diffusion sheet assembly of IWATA et al to include the type of backlight unit as taught by KASHIMA et al in order to provided diffused backlighting toward the liquid crystal display to enhance visibility thereof.

Allowable Subject Matter

16. Claims 7-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. KATO et al (US 4,053,208) shows a diffusion plate (3) bonded to a transparent support (6) defining an illuminated optical system (fig.1), the diffusion plate (3) containing at least one or a combination of wax and crystalline polymers (col.15, lines 31-36), the wax being 0.1 to 20 weight% of total wax and additive weight of the diffusion plate, and cites a reference to BUECHE (US 3,832,315) which discloses wax dispersed in a transparent resin (acrylic resin) to as to scatter light. KONNO et al (US 5,706,134), TOSHIMA et al (US 5,903,391) and MAEKAWA (US 6,217,176) show other diffusion sheets or layers on a substrate, the diffusion sheet including beads or fillers dispersed in a binder.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (703) 308-1952. The examiner can normally be reached on M-F (9:00-5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Alan Cariaso
Primary Examiner
Art Unit 2875

AC
April 6, 2003